

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A suction head for a vacuum cleaner, comprising:
a casing having a suction port for sucking alien substances from the floor;
an agitator roll rotatably installed inside the suction port, a plurality of brushes being arranged on the agitator roll in the length direction;
an agitator roll driving unit including a rotating driving motor having a drive shaft with a rotating lever attached thereto for driving the agitator roll to perform reciprocating rotation of the agitator roll in a predetermined angle range and a driving force transmitting unit for transmitting the driving force of the driving motor to the agitator roll; and
a resonance unit for resonating the reciprocating rotation of the agitator driving unit.
2. (Canceled)
3. (Currently Amended) The suction head of claim 2, A suction head for a vacuum cleaner, comprising:
a casing having a suction port for sucking alien substances from the floor;
an agitator rotatably installed inside the suction port, a plurality of brushes being arranged on the agitator in the length direction;
an agitator driving unit for driving the agitator to perform reciprocating rotation in a predetermined angle range; and
a resonance unit for resonating the reciprocating rotation of the agitator driving unit;
wherein the agitator driving unit comprises:
a driving motor for generating a driving force for performing forward/backward reciprocating rotation in a predetermined angle; and
a driving force transmitting unit for transmitting the driving force of the driving motor to the agitator; and
wherein the driving force transmitting unit comprises:

a rotary link fixed to a motor shaft of the driving motor and rotated coaxially to the motor shaft;

a hinge bracket fixed to one side of the outer circumference of the agitator; and

a connecting rod of which an end is hingedly connected to a position of the rotary link eccentric from the rotation center of the rotary link, and another end is hingedly connected to the hinge bracket.

4. (Original) The suction head of claim 3, wherein the resonance unit comprises a pair of coil springs of which one side ends are fixed to both ends of the rotary link, and the other side ends are fixed to the driving motor or the casing.

5. (Currently Amended) The suction head of claim [[2]] 1, wherein the resonance unit comprises a spiral spring of which an end is fixed to the motor shaft of the driving motor, and another end is fixed to the driving motor or the casing.

6. (Currently Amended) ~~The suction head of claim 2, A suction head for a vacuum cleaner, comprising:~~

~~a casing having a suction port for sucking alien substances from the floor;~~

~~an agitator rotatably installed inside the suction port, a plurality of brushes being arranged on the agitator in the length direction;~~

~~an agitator driving unit for driving the agitator to perform reciprocating rotation in a predetermined angle range; and~~

~~a resonance unit for resonating the reciprocating rotation of the agitator driving unit;~~

~~wherein the agitator driving unit comprises:~~

~~a driving motor for generating a driving force for performing forward/backward reciprocating rotation in a predetermined angle; and~~

~~a driving force transmitting unit for transmitting the driving force of the driving motor to the agitator; and~~

wherein the resonance unit comprises a torsion bar positioned in the agitator coaxially to a central axis of the agitator, the torsion bar of which an end is fixed to the agitator, and another end is fixed to the casing.

7. (Currently Amended) ~~The suction head of claim 1, A suction head for a vacuum cleaner, comprising:~~

~~a casing having a suction port for sucking alien substances from the floor;~~
~~an agitator rotatably installed inside the suction port, a plurality of brushes being arranged on the agitator in the length direction;~~
~~an agitator driving unit for driving the agitator to perform reciprocating rotation in a predetermined angle range; and~~
~~a resonance unit for resonating the reciprocating rotation of the agitator driving unit;~~

wherein the agitator driving unit comprises a forward/backward rotation motor for generating a driving force for performing forward/backward reciprocating rotation in a predetermined angle, a motor shaft of which being connected to the agitator, coaxially to the central axis of the agitator.

8. (Original) The suction head of claim 7, wherein the resonance unit comprises a spiral spring of which an end is fixed to the motor shaft of the driving motor, and another end is fixed to the driving motor or the casing.

9. (Currently Amended) ~~The suction head of claim 1, A suction head for a vacuum cleaner, comprising:~~

~~a casing having a suction port for sucking alien substances from the floor;~~
~~an agitator rotatably installed inside the suction port, a plurality of brushes being arranged on the agitator in the length direction;~~

an agitator driving unit for driving the agitator to perform reciprocating rotation in a predetermined angle range; and

a resonance unit for resonating the reciprocating rotation of the agitator driving unit;

wherein the resonance unit comprises a torsion bar positioned in the agitator coaxially to a central axis of the agitator, the torsion bar of which an end is fixed to the agitator, and another end is fixed to the casing.

10. (Currently Amended) The suction head of claim 1, wherein the brushes are evenly arranged at regular intervals in the length direction of the agitator roll.

11. (Currently Amended) The suction head of claim 1, wherein the brushes are arranged in a plurality of rows in the length direction of the agitator roll.

12. (Original) The suction head of claim 1, further comprising a suction nozzle installed inside the casing, for collecting the alien substances sucked from the suction port, a volume of which being reduced from the suction port to the opposite side.

13. (New) A suction head for a vacuum cleaner, comprising:
a casing having a suction port for sucking alien substances from the floor;
an agitator rotatably installed inside the suction port, a plurality of brushes being arranged on the agitator in the length direction;
an agitator driving unit for driving the agitator to perform reciprocating rotation in a predetermined angle range; and
a resonance unit for resonating the reciprocating rotation of the agitator driving unit;
wherein the resonance unit comprises a spiral spring of which an end is fixed to the motor shaft of the driving motor, and another end is fixed to the driving motor or the casing.